ADVANCED MANUFACTURING TECHNOLOGY

Curriculum Guide for Academic Year 2020-2021

Table of Contents

Associate in Science Degree, p. 1
Certificate of Achievement, p. 2
Certificate of Achievement—Advanced Manufacturing Technology Core Skills p. 2
Career Opportunities, p. 3
Program Mission and Outcomes, p. 3
Legend, p. 3

Students planning to **transfer** to a four-year college or university should refer to the ASSIST web site at www.assist.org and **consult a counselor** before beginning a program of study. Please call (562) 938-4561 (LAC) or (562) 938-3920 (PCC) to schedule a counseling appointment. Students may also wish to visit the Transfer Center on either campus.

Program of study leading to:
Associate in Science (A.S.) Degree

Required Major Coursework:		Units	In Progress	Completed Grade
OSHA 254	OSHA Standards for General Industry	2		
ADMT 50	Advanced Manufacturing, Introduction	3		
ADMT 200	Advanced Manufacturing Math	3		
ADMT 251	Advanced Manufacturing CNC Mills/Lathes	2		
ADMT 252	Advanced Manufacturing Sheet Metal CNC	2		
ADMT 253	Advanced Manufacturing Capstone	2		
CAD 50	Mechanical Drafting, Introduction	2		
CAD 51	Mechanical Drafting, Intermediate	2		
CAD 52	CAD/CAM	2		
CAD 60	Geometric Dimensioning and Tolerancing	3		
ETEC 10	Introduction to Engineering Technology	1		
ETEC 60	Material Science for Engineering Tech	3		
WELD 50	Introduction to Welding	4		
	TOTAL UNITS	**31**		

For graduation with an **Associate in Science (A.S.) Degree with a major in Advanced Manufacturing Technology:**

1. **Minimum Unit Requirements: §**Any course that appears on a curriculum guide and the General Education Pattern (Plan A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012). For this degree, complete a minimum of 60 units in courses numbered 1-599. Please note that additional elective units may be required to meet this minimum based upon courses selected to fulfill General Education for the Associate Degree.
   Advanced Manufacturing Technology 31 Units
   General Education **§** 19 Units
2. **Scholarship:** Maintain an **overall grade point average (GPA) of 2.0** ("C" average) based on all accredited college work applied to the degree, no matter where completed. For this **field of concentration, complete each course above** with a **grade of "C" or better**, or "P" if course is graded on a P/NP basis.
3. **Residence for the Degree:** Complete at least 12 semester units of the required 60 semester units in residence at Long Beach City College in order for the college to grant an Associate of Arts and/or an Associate of Science Degree.
4. **Residence for the Field of Concentration**: Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 15.5 units** of the required 31. Credit earned by exam, where applicable, may be included.

Associate Degree requirements continue on following page.

Associate Degree requirements continued from previous page.

5. **General Education and Proficiency Requirements:** Complete the required A.A./A.S. General Education and Proficiency requirements*, otherwise known as "Plan A". For Plan A requirements, refer to the general catalog or view it online at http://osca.lbcc.edu .
6. Complete and submit the degree application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/ . Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the "Important Dates" link to view the actual deadline for each semester.

*The requirements for general education/proficiency and the field of concentration (major) need to be from the same catalog year. This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is maintained throughout. See the catalog for definition of "continuous enrollment".

Program of study leading to:
Certificate of Achievement

REQUIRED COURSES—Complete the 31 units of required courses as listed in the Associate Degree requirements box.

TOTAL UNITS	**31**		

For graduation with an Advanced Manufacturing Technology **Certificate of Achievement:**

1. Complete each of the **REQUIRED COURSES** listed above with a **minimum grade of** "**C**".
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 15.5 units** of the required 31 units must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/ . Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the "Important Dates" link to view the actual deadline for each semester.

Program of study leading to:
Certificate of Achievement – Advanced Manufacturing Technology Core Skills 3922

REQUIRED CORE COURSES:		**UNITS**	**In Progress**	**Completed Grade**
OSHA 254	OHSA Standards for General Industry	2		
ADMT 50	Advanced Manufacturing, Introduction	3		
ADMT 200	Advanced Manufacturing Math	3		
CAD 50	Mechanical Drafting, Introduction	2		
ETEC 60	Material Science for Engineering Tech	3		
WELD 50	Introduction to Welding	4		
	Total Units	**17**		

For graduation with a **Advanced Manufacturing – Core Skills Certificate of Achievement:**

1. Complete each of the **REQUIRED COURSES** with a **minimum grade of** "**C**" and a cumulative grade point average of 2.5.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 8.5 units** of the required 17 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/ . Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the "Important Dates" link to view the actual deadline for each semester.

Program of study leading to:

Certificate of Achievement – Advanced Manufacturing and Design Technology 3923

REQUIRED CORE COURSES:		UNITS	In Progress	Completed Grade
CAD 50	Mechanical Drafting, Introduction	2		
CAD 51	Mechanical Drafting, Intermediate	2		
CAD 52	CAD/CAM	2		
CAD 60	Geometric Dimensioning and Tolerancing	3		
ETEC 60	Material Science for Engineering Tech	3		
CAD 202	AutoCAD Fundamentals	2		
CAD 220	Introduction to CATIA	2		
	Total Units	**16**		

For graduation with an **Advanced Manufacturing and Design Technology Certificate of Achievement:**

1. Complete each of the **REQUIRED COURSES** with a **minimum grade of** "**C**" and a cumulative grade point average of 2.5.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 8 units** of the required 16 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at http://admissions.lbcc.edu/ . Refer to the Schedule of Classes (http://schedule.lbcc.edu) and click the "Important Dates" link to view the actual deadline for each semester.

Career Opportunities

This **Associate Degree or Certificate of Achievement** is a two-year program leading to the Associate in Science (A.S.) degree. This degree will help students succeed after transferring to a CSU or UC School Computer Science major program. Students wishing a bachelor's degree (transfer program) should meet with a counselor to discuss transferability of courses.

Program Mission and Outcomes

Program Student Outcome:

- Demonstrate the ability to create and interpret mechanical engineering drawing and specifications.
- Create Computer Numerical Control (CNC) machine tool programs utilizing CNC programming. Technologies.

Legend

† This course has a prerequisite. Prerequisite courses must be complete with at least a "C" or "P" grade. Refer to the General Catalog (http://www.lbcc.edu/cat/index.html), the Schedule of Classes (http://schedule.lbcc.edu/), or the online Credit Course Outline (http://wdb-asir.lbcc.edu/coursecurriculum/coursedetails/) for specific prerequisite information.